

ABSTRACT

A vertical cavity surface emitting laser includes a first mirror region forming a first distributed Bragg reflector, a first cladding region, an active region, a second cladding region including a high electrical resistance implanted region positioned to define a current path, a second mirror region, and a current spreading region. A first electrical contact is positioned on the current spreading region and a second electrical contact is positioned to conduct electrical current in circuit with the first electrical contact through the current path. The current spreading region and the second mirror region cooperate to produce substantially uniform current distribution in the current path. A third mirror region is positioned on the current spreading region. The second and third mirror regions cooperate to provide a complete distributed Bragg reflector.